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“Treat and treatment”, a rare and unsuspecting case of Enteric Duplication Cysts (EDC) in an adult man

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ABSTRACT

Background: Enteric duplication cysts are rare congenital malformations. Cases in adults are rare, often asymptomatic and diagnosed incidentally. Enteric duplication cysts in adults could present abdominal pain, distention, mass and dysphagia. The preoperative diagnosis is difficult, radiological images, even an abdominal Computed Tomography scan could not show a bowel duplication. Malignant transformation is rare. Case presentation: We present a case of a 67 year-old man admitted in Our Surgery Unit for several episodes of bowel obstruction. After an ileal resection the anatomopathological exam diagnosed an Enteric duplication cysts. Conclusion: A diagnosis before surgery is difficult. Only surgery and a precise anatomopathological exam can discover this malformation.

Keywords: Enteric duplication cysts, abdominal pain, colonoscopy, bowel constipation, ileal resection, preoperative diagnosis, pathological exam.

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BACKGROUND

Enteric duplication cysts [EDC] are rare congenital malformations. They may involve the entire bowel, but up to 50% of enteric duplication cysts are found in the small bowel, particularly in the ileum.^[1] They usually arise from the mesenteric margin of the bowel. It is possible and rare a second or multiple duplications.^[1-4]

They can be identified via ultrasound during prenatal care and over 80% of cases are discovered by the age of 2 years old.^[11]

Over 80% are diagnosed in the pediatric population.^[4] Cases in adults are rare, often asymptomatic and diagnosed incidentally. Enteric duplication in adults could present symptoms like abdominal pain, distention, mass and dysphagia.^[2-9]

Hemorrhage, volvulus, perforation, obstruction and malignancy are the most common complications.^[8]

Radiological images, even an abdominal Computed Tomography[CT] scan could not show a bowel duplication^[3]. Barium meal study is another opportunity for diagnosis.^[10] Colonoscopy has reported being helpful in the case of larger ostium between the normal bowel and the cyst.^[12]

Surgery is recommended only for symptomatic cases.^[4-9]

Malignant transformation is a rare entity.^[7] Literature reported 23% cases of adenocarcinoma in adult EDCs originating from the ileum.^[8]

Some case reports describe the difficulty to recognize EDC from a more common Meckel's Diverticulum and in these cases the pathological exam is the only solution.^[5-6-9] We here report the case of a 67 year-old man with a rare case of EDC.

CASE PRESENTATION

A 67 year-old man was admitted to the Emergency Department for major abdominal pain, nausea and bowel constipation for 3 days. His past medical history reported a total

prostatectomy for cancer in 2020 complicated by urinary incontinence.

On admission, blood tests showed white blood cells [WBC] count of 8.1 migl/mmc, normal electrolytes levels and a C-Reactive Protein [CRP] of 0.5 mg/d; abdominal CT showed dilated ileal loops without a clear mechanical obstruction. On surgical examination the abdomen was distended with diffuse tenderness. The patient was admitted to the surgery ward with NGT, urinary catheter and oral contrast and fluid therapy. The patient had a bowel evacuation on the same day. He started a liquid diet and on day 1 a light diet. He was discharged on day 5 with a normal diet and a programmed laparoscopic exploratory surgery.

After four days, the patient was readmitted to the ER with abdominal pain and nausea. Blood tests showed WBC 7.8 migl/mmc and a CRP of 0.5 mg/dl. On surgical examination the abdomen was soft with no rebound tenderness. Abdominal RX presented bowel distension and oral contrast [given 2 h before] stopped in the ileum.

The patient was admitted to our surgery ward and the day after oral contrast moved to the right colon. The patient still had abdominal pain with only gas evacuation.

On day 4 from hospitalization the patient got surgery. An explorative laparoscopy was performed, and an important inflammation of part of the ileum was found with a thickened wall.

A laparotomic approach was necessary with a resection of the ileum and a peritoneal lesion. An intraoperative pathological exam was made, the ileum was interested in an ECD, peritoneal lesion was only inflammatory. A terminal stoma of the ileum was performed.

The patient was discharged on day 7 with a specific program of stoma checks made in our ward for every ileostomy we discharge checking blood electrolytes levels and kidney function every two weeks associated with a medical evaluation.

After two months the patient was checked by the endoscopic team with a colonoscopy and a

gastroscopy with no evidence of intestinal stenosis or pathological elements.

The patient got surgery three months after his first ileal resection, particularly a laparotomy was made with a resection of the stoma and a side to side isoperistaltic ileal anastomosis. The patient was discharged on day four after surgery with no complications.

DISCUSSION

EDC is a rare entity in adults. Usually a mistaken diagnosis of IBD is made and CT scan could show Meckel Diverticulum. Symptoms are not specific. Abdominal pain and bowel obstruction are the most common access diagnoses at the Emergency Ward. [4-1-10-11-13]

Our patient's first diagnosis was bowel adhesion syndrome. The abdominal CT scan did not show a mass or something suspicious of a diverticulum. With the patient we decided for an elective surgery, a laparoscopic approach to investigate the real cause of the bowel obstructions. [9-4-11]

Surgical treatment of symptomatic EDC in adults consists of a resection of the cyst and the circostante bowel and viscera making attention to conserve the vascular irroration. [13] But it is not unusual to find a EDC at the histological exam after a bowel resection made for a different first preoperative and intraoperative diagnosis. [1-3-4-11-14]

CONCLUSION

Preoperative diagnosis of EDC is difficult, our case showed an unclear radiological image. In this case only surgery could identify the real cause of obstruction syndrome of the patient, associated with a fast histological exam. [1-4-11-13-14]

In conclusion EDC is still a difficult diagnosis in adults and in most cases surgery remains not only the solution, but the only way of diagnosis.

LIST OF ABBREVIATIONS

EDC Enteric duplication cysts

CT Computed Tomography

WBC White Blood Cells

CRP C-reactive Protein

ETHICS APPROVAL AND CONSENT TO PARTICIPATE

Not applicable.

COMPETING INTERESTS

NO FINANCIAL AND NO-FINANCIAL COMPETING INTERESTS.

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